Current Water Conditions in Massachusetts
September 11, 2014

- August precipitation was below normal
- August streamflows were normal, above, and below normal
- August groundwater levels were normal
- August reservoir levels were generally normal

Precipitation Conditions

Estimated August state-wide average precipitation is 3.24 inches, which is 82 percent of the long-term average for the month. Rainfall in the regions of Massachusetts ranged from 119 percent (Connecticut River) to 47 percent (Cape Cod and Islands and Southeast).

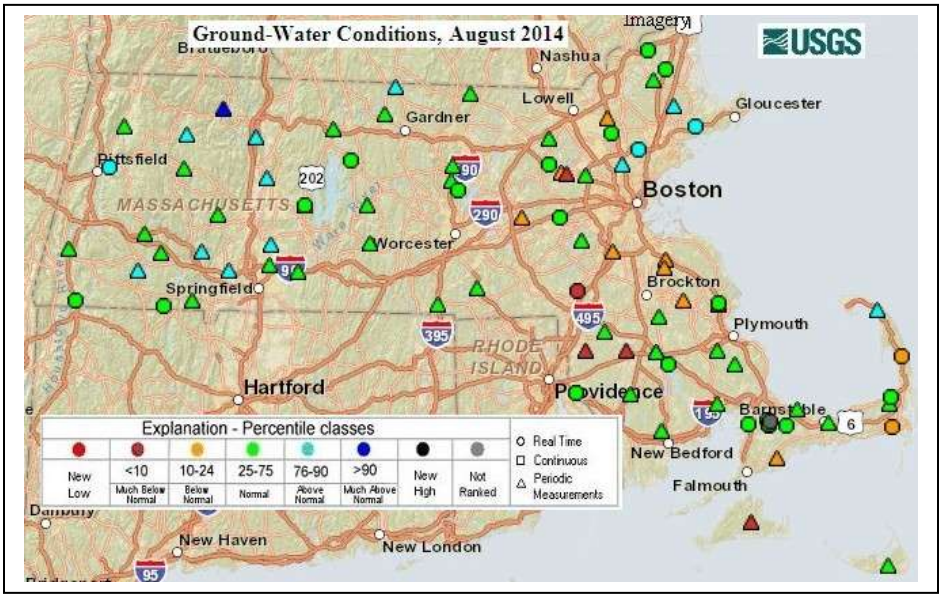
On August 31 an EF0 tornado (65-85 MPH winds) touched down in Worcester MA. The narrow path of this tornado was approximately 1.7 miles long. Damage to trees and associated vehicle, utilities, and structures was reported.

Soil moisture levels for Massachusetts at the beginning of September are reported to be in the normal range. The U.S. Forest Service reports that the fire danger ranges from low to moderate in the state.

A table of August 2014 estimated precipitation statistics, based on preliminary precipitation data from the Department of Conservation and Recreation and National Weather Service precipitation monitoring networks, is attached. A map at the back of this report shows the distribution of August rainfall.

Ground-Water Levels

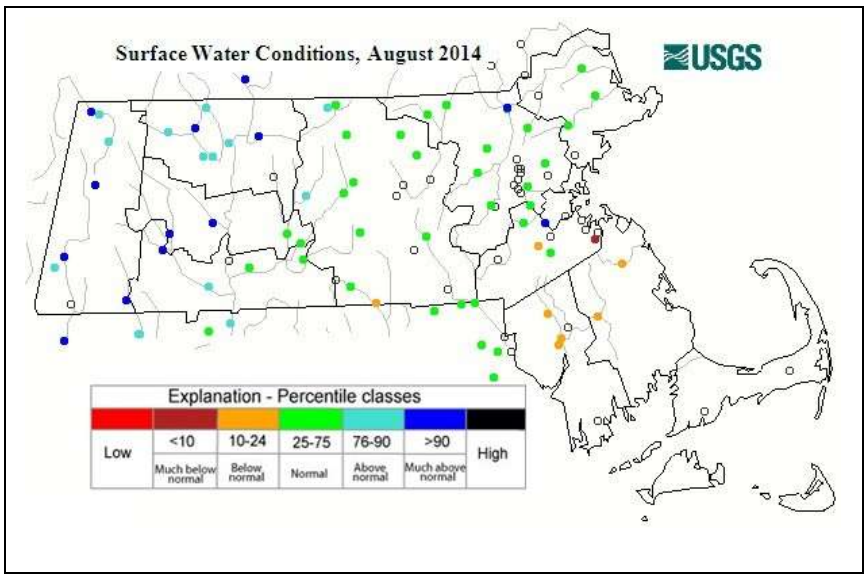
Based on preliminary data, ground-water levels reported by the U.S. Geological Survey at the end of August or beginning of September were generally normal state-wide. There were some groups of above normal levels in western areas and below normal levels in the southeast. An assessment of ground-water conditions in the Massachusetts drought regions is shown in a table at the end of this report. All regions are assessed as having normal groundwater levels. The USGS Groundwater Conditions for the end of August 2014 can be viewed at the web site: http://groundwaterwatch.usgs.gov/StateMapsNet.asp?ncd=crn&sc=25

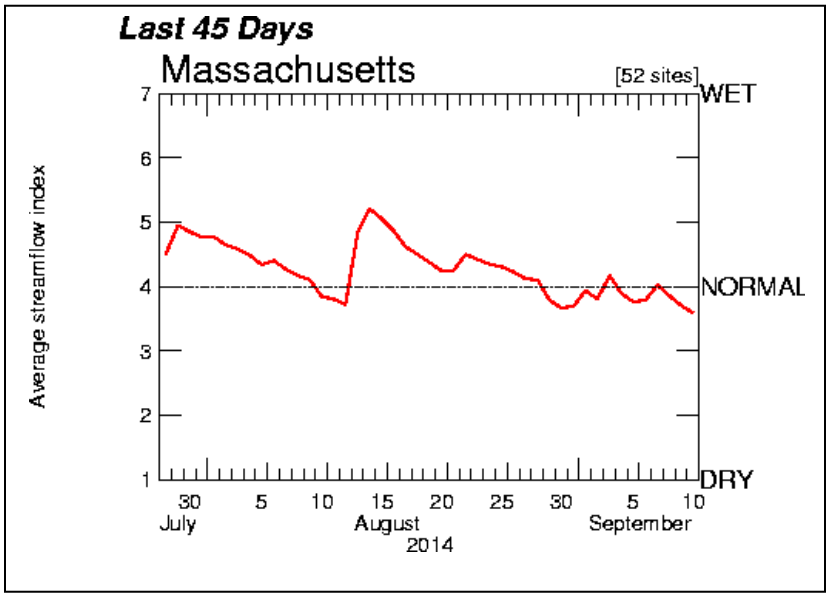


Streamflow

Average August 2014 streamflows that are monitored by the Commonwealth of Massachusetts and United States Geological Survey (USGS) cooperative stream gaging program were generally above normal in the Connecticut River Valley and western areas of the state. In southeast area flows were below normal and in the remainder of the state flows were generally normal.

The graph below depicts a composite daily streamflow relative to normal streamflow for Massachusetts for the period of July 28, to September 10, 2014. Flows were predominantly in the high normal range during August and have dropped to normal and low normal range during the first part of September. The graph is a composite of 52 real-time gages across the state with a long period of record. This streamflow plot can be found at: http://waterwatch.usgs.gov/index.php?map_type1=pa07d&map_type2=&map_type3=&map_type4=&web_type=pa07d%2Cplot&state=ma&huc=us&xinfo=&map_type=real&group_idx=1&region_cd=ma&group_idx_changed=1&sel_nm=map_type1&sel_va=real





KEY:

1 = New record low for day
2 = < 10th percentile
3 = 10th – 24th percentile
4 = 25th – 74th percentile
5 = 75th – 89th percentile
6 = ≥ 90th percentile
7 = New record high for day

Water Supply Reservoir Levels

Selected surface water reservoir percent-full values for water supply sources provided by water suppliers are listed below. These levels are generally normal to a little below normal for this time of year. The reservoir percent-full values listed are for the end of August or the beginning of September 2014.

August /September 2014 Massachusetts Reservoir Status

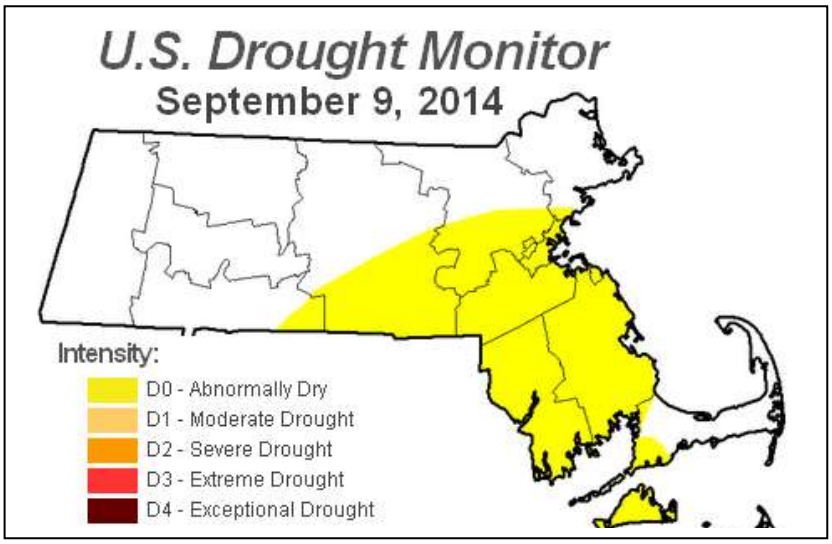
Reservoir/City or Town	Percent Full	Reservoir/City or Town	Percent Full
Quabbin	93.5	Beverly/Salem	83.1
Worcester	75	Lynn	67.3
Cobble Mt./ Springfield	92.2	Taunton/New Bedford/Assawompsett	90.2

Note: NA Indicates data not available for this report

Drought Indices/Forecasts

US Drought Monitor

The National Drought Mitigation Center's (NDMC's) September 12, 2014 Drought Monitor Map shown at right indicates abnormally dry conditions extending from Metropolitan Boston to south central and southeast areas including parts of Cape Cod and the Islands of Massachusetts.

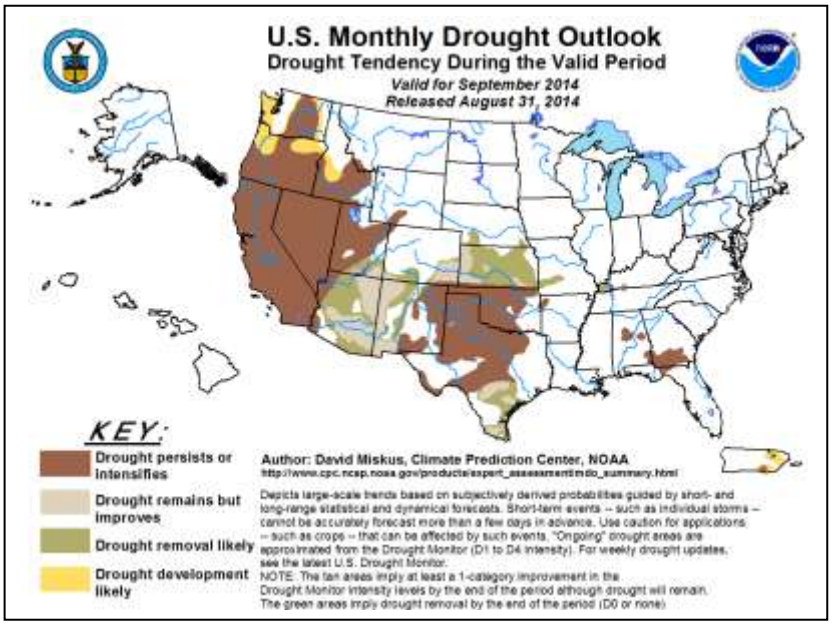


Standardized Precipitation Index (SPI)

All the Standardized Precipitation Index values for the regions used for the Massachusetts Drought Management Plan are in the normal range with the exception of the 6-month SPI for Cape Cod and the Islands, which is in the Advisory range.

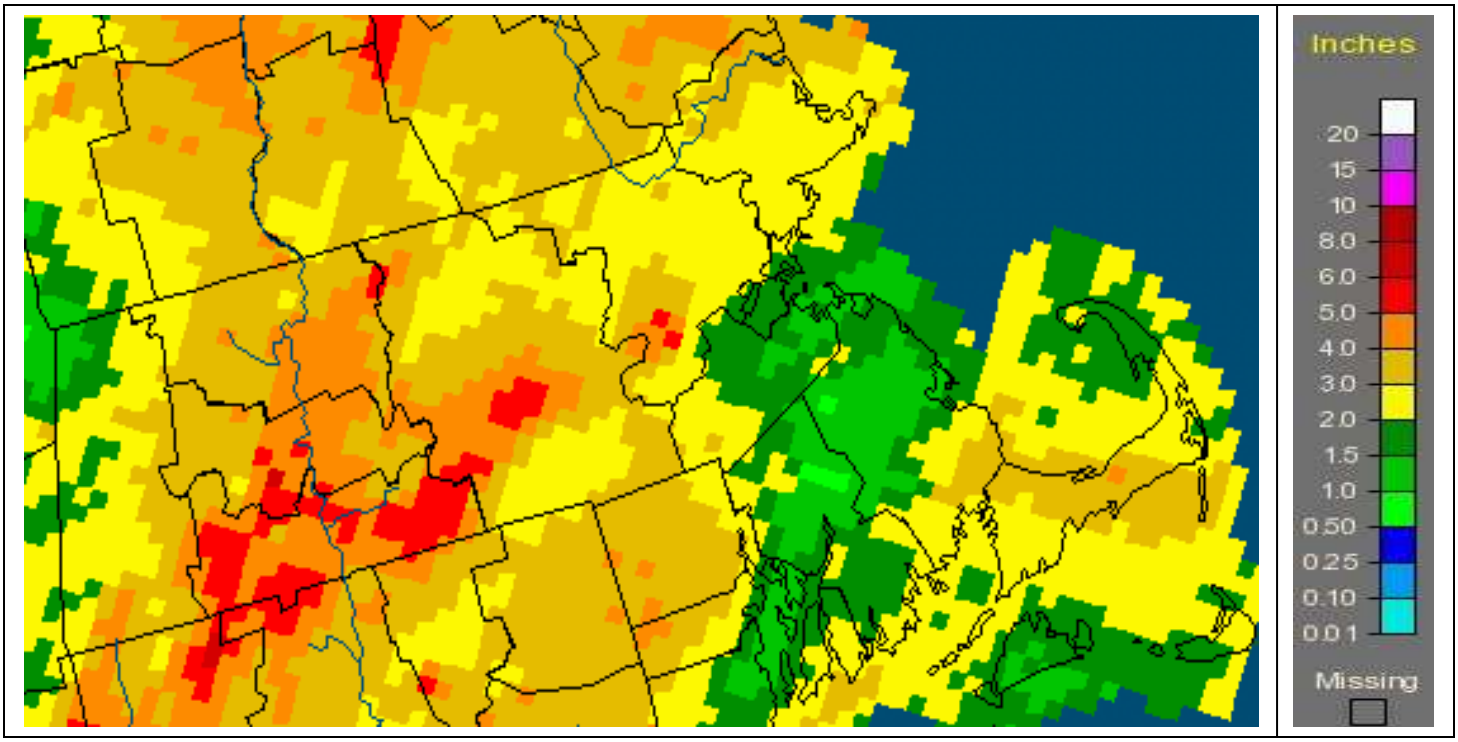
NWS/NOAA's Climate Prediction Center

The U.S. Monthly Drought Outlook for September (shown at the right) forecasts normal conditions at the end of the month. The seasonal drought outlook (not shown) predicts that there will be no drought condition through the end of November in Massachusetts.



Extended Forecasts

Short term forecast is for showers ending later today and then fair and cooler weather into Saturday. Possible showers late Saturday, then fair and cool into early next week. The National Weather Service Climate Prediction Center's extended 6 to 10- and 8 to 14-day forecasts are for below normal precipitation and temperatures. The 1- and 3-month forecasts are for normal rainfall and above normal temperatures. The NWS Climate Prediction Center Information can be found at: http://www.cpc.noaa.gov/index.php



http://water.weather.gov/precip/

TOTAL RAINFALL
AUGUST 2014

GENERAL WATER CONDITIONS IN MASSACHUSETTS - AUGUST 2014

EOEEA and MEMA DROUGHT MANAGEMENT PLAN REGIONS

Massachusetts Regions	Surface-Water Conditions	Ground-Water Conditions
Cape and Islands	ND	Normal
Southeast	Below Normal	Normal
Northeast	Normal	Normal
Central	Normal	Normal
Connecticut River	Above Normal	Normal
Western	Above Normal	Normal

Note: Surface- and ground-water conditions for individual streamflow-gaging stations and wells may differ from general conditions. ND, no data

This report was prepared by the Massachusetts Department of Conservation and Recreation. Data were obtained from the sources described in the report and may be preliminary in nature. Additional information, previous and future water conditions reports can be found on our web site:
http://www.mass.gov/eea/agencies/dcr/water-res-protection/water-data-tracking/precipitation-composite-current-conditions.html